NPDES Permit No. AZ0020281

AUTHORIZATION TO DISCHARGE UNDER THE
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of the Clean Water Act, as amended (33 U.S.C. 1251 et. seq; the "Act"),

Navajo Tribal Utility Authority
Kayenta
P.O. Box 170
Fort Defiance, Arizona 86504

is authorized to discharge treated wastewater from the wastewater treatment lagoon facility located approximately one mile east of Kayenta, Apache County, Arizona, from Outfall Discharge Number 001,

Latitude: 36° 43' 59" N
Longitude: 110° 13' 50" W

to receiving waters named Laguna Wash, a tributary to Chinle Wash, a tributary to the San Juan River, in accordance with effluent limitations, monitoring requirements and in the attached 14 pages of EPA Region 9 "Standard Federal NPDES Permit Conditions," dated May 10, 1990.

This permit shall become effective on _____.

This permit and the authorization to discharge shall expire at midnight, _____.

Signed this_____day of _____

For the Regional Administrator

Alexis Strauss, Director
Water Division
EPA, Region 9

SECTION A. EFFLUENT LIMITATION AND MONITORING REQUIREMENTS

Based upon the current average capacity of 0.90 MGD, the permittee is authorized to discharge from Outfall Serial Number 001 treated domestic wastewater.

1. The influent shall be sampled prior to it entering the lagoons. The effluent shall be sampled after final treatment prior to discharge to discharge to Laguna Wash, a tributary to Chinle Wash, a tributary to the San Juan River.

2. Such discharge shall be limited and monitored by the permittee as specified below:

Effluent Parameter	Units	Monthly Average	Weekly Average	Daily Maximum	Monitoring Frequency[1]	Sample Type
Flow[1]	MGD	--	--	--	Once/month	Continuous
BOD_5[2]	mg/l	30	45	--	Once/month	Composite
	kg/day	101	152	--		
TSS[2]	mg/l	90	135	--	Once/month	Composite
	kg/day	304	456	--		
Fecal Coliform Bacteria	#/100 ml	200[3]	--	400[4]	Once/month	Discrete
TRC[5]	ug/l	--	--	11.0	Once/day	Discrete
TDS[6]	mg/l	--	--	--	Once/month	Discrete
NH_3[7]	mg/l	--	--	--	Once/quarter	Discrete
Temp[8]	deg F	--	--	--	Once/quarter	Discrete
pH[9]	std. units	between 6.5 to 9.0			Once/day	Discrete
Priority Pollutant Scan[10]	mg/l	--	--	--	Once/Year	Composite

NOTES:

1. Both the influent and effluent shall be monitored and reported. All samples shall be discrete unless otherwise noted.

2. For BOD_5, the arithmetic means of values, by weight, for effluent samples collected in a period of 30 consecutive calendar days shall not exceed 15 percent of the arithmetic mean of values, by weight, for influent samples collected at approximately the same times during the same period. For TSS, the arithmetic means of values, by weight, for effluent samples collected in a period of 30 consecutive calendar days shall not exceed 35 percent of the arithmetic mean of values,

by weight, for influent samples collected at approximately the same times during the same period.

3. Geometric mean of samples collected during the calendar month.

4. Single sample maximum.

5. "TRC" = Total Residual Chlorine. If chlorination is used, the permittee shall at all times operate the plant to achieve the lowest possible residual chlorine while still complying with permit limits for fecal coliform.

   TRC shall also be measured once/day at the outfall and reported on the Discharge Monitoring Reports, along with an estimate of the natural flow of the stream.

6. Both the plant effluent (Outfall Number 001) and the intake water supply shall be sampled. The incremental increase is the difference between the two sample analyses.

   Salinity (TDS) is determined by the "calculation method" (sum of constituents) as described in the latest edition of "Techniques of Water Resources Investigations of the United States Geological Survey-Methods for Collection and Analysis of Water Samples for Dissolved Minerals and Gases."

7. "NH3" = un-ionized ammonia. No limit set at this time but permittee must monitor once/quarter. Should the results of the first four quarters of tests reveal levels below EPA's National Water Quality Criteria for ammonia, the monitoring frequency will be decreased to once/year. See Section C (Permit Reopener) below.

8. Temperature measurements shall be taken concurrently with measurements for ammonia.

9. Effluent pH units are based on the numeric standards for aquatic, wildlife and livestock, consistent with the Navajo Nation water quality standards (Table 206B.1, page 28.) The more stringent standards are associated with the concern for endangered fish species that are present in the San Juan River.

10. No limit set at this time. Should the results of the first test reveal levels below EPA's National Water Quality Criteria for priority pollutants and ammonia, monitoring will no longer be required of the permittee. See Part B below

SECTION B. GENERAL DISCHARGE SPECIFICATIONS

All Waters of the Navajo Nation shall be free from pollutants in amounts or

combinations that, for any duration:

1. Cause injury to, are toxic to, or otherwise adversely affect human health, public safety, or public welfare.

2. Cause injury to, are toxic to, or otherwise adversely affect the habitation, growth, or propagation of indigenous aquatic plant and animal communities or any member of these communities; of any desirable non-indigenous member of these communities; of waterfowl accessing the water body; or otherwise adversely affect the physical, chemical, or biological conditions on which these communities and their members depend.

3. Settle to form bottom deposits, including sediments, precipitates and organic materials, that cause injury to, are toxic to, or otherwise adversely affect the habitation, growth, or propagation of indigenous aquatic plant and animal communities or any member of these communities; of any desirable non-indigenous member of these communities; of waterfowl accessing the water body; or otherwise adversely affect the physical, chemical, or biological conditions on which these communities and their members depend.

4. Cause physical, chemical, or biological conditions that promote the habitation, growth or propagation of undesirable, non-indigenous species of plant or animal life in the water body.

5. Cause solids, oil, grease, foam, scum, or any other form of objectionable floating debris on the surface of the water body; may cause a film or irridescent appearance on the surface of the water body; or that may cause a deposit on a shoreline, on a bank, or on aquatic vegetation.

6. Cause objectionable odor in the area of the water body.

7. Cause objectionable taste, odor, color, or turbidity in the water body.

8. Cause objectionable taste in edible plant and animal life, including waterfowl, that reside in, on, or adjacent to the water body.

SECTION C. PERMIT REOPENER

Should any of the monitoring indicate that the discharge causes, has the reasonable

potential to cause, or contributes to excursions above water quality criteria, the permit may be reopened for the imposition of water quality based limits and/or whole effluent toxicity limits. Also, this permit may be modified, in accordance with the requirements set forth at 40 CFR Parts 122.44 and 124.14, to include appropriate conditions or limits to address demonstrated effluent toxicity based on newly available information, or to implement any EPA-approved new Tribal water quality standards.

SECTION D. BIOSOLIDS REQUIREMENTS

1. The permittee shall submit a report 60 days prior to disposal of biosolids. The report shall include:

   a. A map showing biosolids handling facilities (e.g. digesters, lagoons, drying beds, incinerators, location of land application and surface disposal sites).

   b. The quantity of biosolids produced in dry metric tons.

   c. The treatment applied to biosolids including process parameters. For example, if the biosolids is digested, report the average temperature and retention time of the digester. If drying beds are used, report depth of application and drying time. If composting is used, report the temperature achieved and duration. Also report dewatering methods and percent biosolids of final reports.

   d. Disposal methods (e.g., 50% to landfill, 40% land applied, 10% sold as commercial product.) Report the names and locations of all facilities receiving waste.

   e. If biosolids is to be land-applied, analyses shall be conducted and submitted for Arsenic, Cadmium, Chromium, Copper, Lead, Mercury, Nickel, Molybdenum, Zinc, and Selenium, and for organic-N, ammonium-N, and nitrate-N. The analyses shall be performed using the methods in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods" (SW-846) and test results shall be expressed in milligram (mg) pollutant per kilogram (kg) biosolids on a 100% dry weight basis.

   f. If biosolids is placed in a surface disposal site, analyses shall be submitted for Arsenic, Chromium, and Nickel. A groundwater monitoring plan shall be submitted or a certification from a groundwater scientist that there is no potential for groundwater contamination.

2. The permittee shall comply with all standards for sewer biosolids use and disposal established under Section 405(d) of the Clean Water Act, including for existingstandards under 40 CFR Parts 257, 258 and 503.

3. Reports for biosolids monitoring shall be submitted to:

Regional Biosolids Coordinator
US EPA (WTR-7)
75 Hawthorne Street
San Francisco, CA 94105-3901

SECTION E. MONITORING AND REPORTING

I. Reporting of Monitoring Results

A. Monitoring results shall be reported on Discharge Monitoring Report (DMR) forms (EPA No. 3320-1) to be supplied by the EPA Regional Administrator, to the extent that the information reported may be entered on the forms. The results of all monitoring required by this permit shall be submitted in such a format as to allow direct comparison with the limitations and requirements of the permit.

Unless otherwise specified, discharge flows shall be summarized and reported in terms of the average flow over each monthly period and the maximum daily flow over that monthly period. Each monthly report is due by the 28th of the following month (i.e. the January report is due by February 28.) Duplicate signed copies of these, and all other reports required herein, shall be submitted to the Regional Administrator at the following addresses:

Regional Administrator
Environmental Protection Agency
Region IX, Attn: WTR-7
75 Hawthorne Street
San Francisco, CA 94105

Navajo Nation EPA
NPDES Program
P.O. Box 339
Window Rock, AZ 86515

B. For effluent analyses, the permittee shall utilize an EPA-approved analytical method with a Method Detection Limit (MDL) that is lower than the effluent limitations

(or lower than applicable water quality criteria, listed in A.A.C. Title 18, Chapter 11, Article 1, for trace substances where monitoring is required but no effluent limitations have been established.) MDL is the minimum concentration of an analyte that can be detected with 99% confidence that the analyte concentration is greater than zero, as defined by the specific laboratory method listed in 40 CFR Part 136. The procedure for determination of a laboratory MDL is in 40 CFR Part 136, Appendix B.

C. If all published MDLs are higher than the effluent limitations (or applicable criteria concentrations), the permittee shall utilize the EPA-approved analytical method with the lowest published MDL.

D. The permittee shall develop a Quality Assurance (QA) Manual/QA Plan. The purpose of the QA Manual is to assist in planning for the collection and analysis of samples and explaining data anomalies if they occur. As appropriate and applicable, the QA Manual shall include the details enumerated below. The QA Manual shall be retained on the permittee's premises and be available for review by USEPA or Navajo Nation EPA upon request. The permittee shall review its QA Manual annually and revise it when appropriate. Throughout all field sampling and laboratory analyses, the permittee shall use quality assurance/quality control (QA/QC) procedures as documented in their QA Manual.

1. Project Management including roles and responsibilities of the participants; purpose of sample collection; matrix to be sampled; the analytes or compounds being measured; applicable technical, regulatory, or program-specific action criteria; personnel qualification requirements for collecting samples.

2. Sample collection procedures; equipment used; the type and number of samples to be collected including QA/QC samples (i.e., background samples, duplicatives, and equipment or field blanks); preservatives and holding times for the samples (see 40 CFR Part 136.3).

3. Identification of the laboratory to be used to analyze the samples; provisions for any proficiency demonstration that will be required by the

laboratory before or after contract award such as passing a performance evaluation sample; analytical method to be used; required QC results to be reported (e.g., matrix spike recoveries, duplicate relative percent differences, blank contamination, laboratory control sample recoveries, surrogate spike recoveries, etc.) and acceptance criteria; and corrective actions to be taken by the permittee or the laboratory as a result of problems identified during QC checks.

4. Discussion of how the permittee will perform data review and requirements for reporting of results to USEPA or Navajo Nation EPA to include resolving of data quality issues and identifying limitaitns on the use of the data.

E. Sample collection shall be performed as stated in the QA Manual. The QA Manual shall include a discussion on the preservation and handling, preparation and analysis of samples as described in the most recent edition of 40 CFR 136.3, unless otherwise specified in this permit.

II. Monitoring and Records

Records of monitoring information shall include:

A. Date, exact location, and time or sampling or measurements performed, preservatives used;
A. Individual(s) who performed the sampling or measurements;
A. Date(s) analyses were performed;
A. Laboratory(ies) which performed the analyses;
A. Analytical techniques or methods used;
A. Any comments, case narrative or summary of results produced by the laboratory. These should identify and discuss QA/QC analyses performed concurrently during sample analyses and should specify whether they met project and 40 CFR Part 136 requirements. The summary of results must include information on inititial and continuing calibration, surrogate analyses, blanks, duplicates, laboratory control samples, matrix spike and matrix spike duplicate results, sample receipt condition, holding times, and preservation.
A. Summary of data interpretation and any corrective action taken by the permittee.
A. Effluent limitations for analytes/compounds being analyzed.

III. Twenty Four-Hour Reporting of Noncompliance

The permittee shall report any compliance which may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances to the following persons or their offices:

CWA Compliance Office Manager
U.S. EPA Region 9
(415) 744-1905

If the permittee is unsuccessful in contacting the person above, the permittee shall report by 9 a.m. on the first business day following the noncompliance. A written submission shall also be provided within five (5) days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including dates and times, and, if the noncompliance has not been corrected, the time it is expected to continue; and steps or planned to reduce, eliminate, and prevent reoccurence of the noncompliance.

SECTION F. INSPECTION AND ENTRY

The permittee shall allow the Director, or an authorized representative, upon the presentation of credentials and such other documents as may be required by law, to perform inspections under authority of Section 10: Inspection and Entry of the “EPA Region 9 Standard Federal NPDES Permit Conditions," dated May 10, 1990, as attached.

SECTION G. DEFINITIONS

The following definitions shall apply unless otherwise specified in this permit:

1. "Discrete sample" means any individual sample collected in less than 15 minutes.

2. "Daily discharge" means the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar for purposes of sampling. For pollutants with limitations expressed in terms of mass, the "daily discharge" is calculated as the total mass of the pollutant discharged over the sampling

day. For pollutants with limitations expressed in other units of measurement, the "daily discharge" is calculated as the average measurement of the pollutant over the sampling day. "Daily discharge" determination of concentration made using a composite sample shall be the concentration of the composite sample. When grab samples are used, the "daily discharge" determination of concentration shall be the arithmetic average (weighted by flow value) of all samples collected during that sampling day.

3. "Daily average" discharge limitation means the highest allowable average of "daily discharges" over a calendar month, calculated as the sum of all "daily discharges" measured during a calendar month divided by the number of "daily discharges" measured during that month.

4. "Daily maximum" concentration means the measurement made on any single discrete sample or composite sample.

5. "Daily maximum" mass limit means the highest allowable "daily discharge" by mass during any calendar day.

6. A "composite sample" means, for flow rate measurements, the arithmetic mean of no fewer than 8 individual measurements taken at equal intervals for eight (8) hours or for the duration of discharge, whichever is shorter. A composite sample means, for than flow rate measurement, a combination of eight (8) individual portions obtained at equal time intervals for eight (8) hours or for the duration of the discharge, whichever is shorter. The volume of each individual portion shall be directly proportional to the discharge flow rate at the time of sampling. The sampling period shall coincide with the period of maximum discharge flow.

7. A "monthly or weekly average" concentration limitation means the arithmetic mean of consecutive measurements made during a calendar monthly or weekly period, respectively. The "monthly or weekly average" concentration for fecal or total coliform bacteria means the geometric mean of measurements made during a monthly or weekly period, respectively. The geometric mean is the nth root of the product of n numbers.

8. A "monthly or weekly average" mass limitation means the total discharge by mass during a calendar monthly or

weekly period, respectively, divided by the number of days in the period that the facility was discharging. Where less than daily sampling is required by this permit, the monthly or weekly average value shall be determined by the summation of all the measured discharges by mass divided by the number of days during the monthly or weekly period when the measurements were made.